

[CLAIMS]

1. A method for the preparation of a dispersion of zinc sulfide particles doped with copper (ZnS:Cu), said method comprising the step of performing a precipitation by mixing together a zinc salt, a sulfide, and a citrate or EDTA complex of copper ions, dissolved in several aqueous solutions.
2. A method according to claim 1 wherein said precipitation is performed according to the double jet principle, whereby a first solution containing said zinc salt and said citrate or EDTA complex of copper ions, and a second solution containing said sulfide are added simultaneously to a third solution.
3. A method according to claim 1 or 2 wherein said copper ions are copper(I) ions.
4. A method according to claim 3 wherein said copper(I) ions are incorporated as copper(I) chloride.
5. A method according to any of claims 1 to 4 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.
6. A method according to claim 5 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.
7. A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to any of the previous claims.

Sub
A₁

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Sub
A₂

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Sub
A₃New
Claim
A₄